

SHOUTcast Streaming Best Of Technical Support



Written By
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www.ScenicRadio.Com

Relaxing Entertainment for the World



www.BroadcastingWorld.Com

Global Broadcast Information Portal

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Red Rose dedication picture taken by Jon Sullivan

www.public-domain-photos.com/flowers/rose-free-stock-photo-4.htm

Front Cover Illustration - Computer

en.wikipedia.org/wiki/File:Computer-aj_aj_ashton_01.svg

About The Author

David Childers is the Content Manager for the Global Broadcasting portal www.BroadcastingWorld.com. He is very active in the Internet broadcast industry and has written numerous guides and a book about this growing technological field. He is also the webmaster of www.ScenicRadio.com, the global destination for relaxing entertainment.

Mr. Childers' work has been cited in several national and International publications, including these:

Five Essays on Copyright In the Digital Era
Turrer Publishing

Research On High-Profile Digital Video Production
Digital Content Association of Japan

Video Podcasting in Perspective: The History, Technology, Aesthetics and Instructional Uses of a New Medium
Journal of Educational Technology Systems

Video Podcasting: When, Where and How it's Currently used for Instruction
The National Convention of the Association for Educational Communications and Technology

IP Packet Charging Model For Multimedia Services
National University of Rwanda

Preservation of audiovisual mediums : Problems and challenges.
Platform for Archiving and Preservation of Art on Electronic and Digital Media.

P2P Technology Trend and Application to Home Network
Electronics and Telecommunications Research Institute Journal

Peer To Peer Computing - The Evolution of a Disruptive Technology
Idea Group Publishing

Peer-to-Peer Systems and Applications
Lecture Notes In Computer Science
Springer Berlin / Heidelberg

Foreword

Setting up a SHOUTcast radio station can be a daunting task. A broadcaster must download all the necessary software, then install it. Once the software is installed, the broadcaster must troubleshoot any errors that are encountered. The following is a compilation of the most frequently asked technical support questions submitted by SHOUTcast administrators and broadcasters.

I would like to thank Dale Nobles for providing assistance with the editing of the manuscript and to James Davey at Broadcasting World for allowing me the opportunity to create this handbook.

It is my sincere hope that the reader finds this handbook a valuable resource.

David Childers

November 2009

Sustaining Member



Society Motion Picture
and Television Engineers

The lesson here is you can't expect users to learn. There's too much fun going on out there on the Internet.

Pete Lindstrom

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Winamp Source DSP Plugin

Winamp source DSP not saving configuration settings (Windows Vista)

Run software with administrator privileges.

The steps necessary to do this are:

- Right click on the Winamp shortcut
- Select "Run as administrator"
- Enter the credentials of a user with administrative privileges on your computer
- Click OK
- Run Winamp

Cause of poor sound quality when using line in or Winamp source DSP plugin

For professional quality sound use an external mixer, when voice and music are mixed. It is also recommended that a good quality sound card is used or an external USB sound card is used for laptops.

Problems with Title updates when streaming

Make sure "Auto" is checked next to the "Title" box.

Check the password. It should contain only letters (Aa-Zz) and numbers (0-9), with no spaces or other characters.

If you are running a Winamp source DSP stacker such as MuchFX, try running without it and see if that helps. DSP Stackers are used to enable multiple DSP plug-ins that run at the same time.

If any changes were made to the SHOUTcast DNAS server .ini/.conf file, (Other than MaxUser, PortBase, Password, AdminPassword.) there is a possibility that one of those settings may be causing problems.

Title / Artist not displaying

If you using the Winamp source DSP, verify the following settings:

Check - "Enable Title Updates"

Check - "Title"

Check - "Url"

Make sure that the audio files are tagged with ISO and not UTF.

Make sure that the audio files are tagged using ID3tag version 2.3 and not ID3V2.4.

Make sure there are no changes in the SHOUTcast DNAS server configuration file or streaming client software.

Turning off the metadata in a stream

Un check the "Title Updates" in the Winamp source DSP.

Alternatives for computers without sound cards to enable the use of the Winamp source DSP

In the Winamp preferences, you need to set the output plugin to the "Null Output Plugin". One of the purposes of the Null Output plug-in is to allow Winamp to work without a soundcard.

Winamp stops playing after several hours of streaming

Some of the music files are not capable of being properly played. Make sure there are no mp4/wma's/ogg/flac files that you are attempting to play. Also, make sure that there are not any nonmusical files in the directory that Winamp is retrieving the music from.

The network address for the SHOUTcast DNAS server to use, if it is installed on the same computer as the Winamp source DSP

"localhost" or "127.0.0.1"

Configuration of the Winamp source DSP to allow the input of Skype calls

Go to the recording control (open mixer). It can be set for either "What You Hear" or "Microphone". It should be set for "What You Hear" and it needs to be set in soundcard mode. It is recommended that headphones are used on each end, to avoid audio feed back.

Intermittent lock-up problem when using the Winamp source DSP

Make sure that you are using the correct and up-to-date manufacturer provided sound card driver software. Do not use the Windows generic sound card driver software.

The Winamp source DSP wont reconnect to the SHOUTcast DNAS server

Make sure that the SHOUTcast DNAS configuration "AutoDumpSourceTime" is not set to zero. If this configuration is set to zero, "AutoDumpSourceTime" will hold the stream open indefinitely when the Winamp source DSP disconnects. This can result in the Winamp DSP source not being able to reconnect until the SHOUTcast DNAS server is restarted. The "AutoDumpSourceTime" default is 30, however this can be lowered to 10 to achieve a faster reconnect time.

For Windows Vista users, make sure that Winamp and the source DSP are running with administrator account privileges.

SHOUTcast DNAS Server

yp.shoutcast.com gave extended error :

Cannot see your station/computer (IP: 128.128.128.128:8000) from the Internet, disable Internet Sharing/NAT/firewall/ISP cache (Connection timed out.)

The SHOUTcast DNAS server cannot access the Internet. There is a firewall blocking access or a network router has not been configured.

You must open up the appropriate ports within the Firewall or you must configure the network router to forward the appropriate ports. These ports are PortBase and PortBase +1.

You can view additional information regarding port forwarding here www.portforward.com for step-by-step instructions.

yp.shoutcast.com gave extended error :

This network has been permanently banned due to a previous violation of the SHOUTcast directory terms of service.

This means your stream is no longer listed, and that you or someone using your subnet has been banned from the SHOUTcast station directory. This does not mean that your stream will no longer work, it means that your station will no longer be listed in the SHOUTcast station directory.

[main] error opening source socket! FATAL ERROR! Some other process is using this port!
(SHOUTcast DNAS server)

This indicates that another application is using the port that you are attempting to stream on.

Make sure you are running only one SHOUTcast DNAS server instance on your computer. If you are not, restart the SHOUTcast server to shut down all server activities.

If these steps do not alleviate the problem, then use an alternative port for the SHOUTcast DNAS server to stream on.

If any changes are made to the SHOUTcast DNAS server configuration file, you must restart the SHOUTcast DNAS server for the changes to take affect.

The URL address of the SHOUTcast DNAS server control panel

http://ip_address_of_computer:port_number

The SHOUTcast DNAS server cannot see the computer running the Winamp source DSP

("cannot see your computer...disable the firewall")

If the computer hosting the Winamp source DSP has a firewall running, make sure that the proper ports are open to allow it to communicate with the network. These are PortBase and PortBase +1.

If you are using a network router to link the computer hosting the Winamp Source DSP, make sure that the proper ports have been forwarded. These ports are PortBase and PortBase +1.

You can view additional information regarding port forwarding here www.portforward.com for step-by-step instructions.

Playing a song or audio file before the audio stream starts

You can enable the intro file feature in the SHOUTcast DNAS server configuration file.

; IntroFile can specify a mp3 file that will be streamed to listeners right

; when they connect before they hear the live stream.
; Note that the intro file MUST be the same samplerate/channels as the
; live stream in order for this to work properly. Although bitrate CAN
; vary, you can use '%d' to specify the bitrate in the filename
; (i.e. C:\intro%d.mp3 would be C:\intro64.mp3 if you are casting at 64kbps).
; The default is no IntroFile
; IntroFile=c:\intro%d.mp3 << uncomment and set the path here.

Remove the ; to enable this function in the SHOUTcast DNAS server config.

Make sure the audio file is exactly the same bitrate, frequency and channel settings as the stream or it will cause problems in the stream.

Make sure that the correct path is set to the audio file you want to play.

Example : IntroFile=C:\Programas\SHOUTcast\intro.mp3

The name of the intro file needs to exactly match the file name that is set in the path. It is recommend spaces are not used in the path location or file name.

Change a SHOUTcast stream from public to private or from private to public

- Open Winamp
- Ctrl+P (for Preferences)
- Plug-ins > DSP/Effect
- Double click "Nullsoft SHOUTcast Source DSP"
- Output Tab > Yellow Pages > Make sure 'Make this server public' is checked/selected OR unchecked/deselected.

If you are changing from a private to a public listing, it can take up to several minutes before it is listed in the SHOUTcast station directory.

Running multiple instances of the SHOUTcast DNAS server on the same computer feeding from the same source at the same time

Copy the original SHOUTcast DNAS server sc_serv.conf information to a new file.

Rename the copied file to serv_duplicate.conf.

In the serv_duplicate.conf file, change the PortBase to 8002

Note: You must increase the PortBase by 2 for each additional stream. If you are running a firewall or network router, make sure these ports are open and or they have been forwarded.

Duplicate this process with the sc_trans.conf.

Copy the original SHOUTcast DNAS server sc_trans.conf information to a new file.

Rename the copied file to trans_duplicate.conf.

In the serv_duplicate.conf file, change the PortBase to 8002.

Note: You must increase the PortBase by 2 for each additional stream. If you are running a firewall or network router, make sure these ports are open and / or they have been forwarded.

The path to each playlist location must be changed in the configuration.

Example: PlaylistFile=/path/to/sc_trans_040/trans_duplicate.txt

Load balancing SHOUTcast DNAS relay servers

The SHOUTcast station directory will automatically load balance clients that are connected to a group or cluster of servers that relay the same stream.

Relayed servers do not cluster on SHOUTcast station directory, they appear as individual stations

Check to make sure your master/relay server chain is set up correctly.

Encoder -> Public Server 1 -> Relay Server 2 etc.

* You cannot cluster two public servers that are relaying from a private or hidden master server.

Restart the relay server and let it reconnect to the master server.

When the relay server is restarted, wait approximately 10 minutes and then look at logfiles to see if there are any errors.

* When the relay server is restarted, it will contact the master server, connect, and stream whatever the master server is streaming. It will not be looking for a source connection from the Winamp DSP Plugin.

Relay stream freezes and will not reconnect

Make sure that the "AutoDumpSourceTime" is not set to zero. Try configuring the time setting between 15 to 20, for the "AutoDumpSourceTime" in the SHOUTcast DNAS server sc_serv configuration file.

SHOUTcast DNAS server freezes and eventually disconnects

More symptoms of this problem appear on the input tab of the Winamp DSP source. The audio level bars freeze up and there are moments when it indicates "Connected", however, the "Bytes Sent" number remains the same.

The solution is to make sure that the computer hosting the SHOUTcast DNAS server has the proper amount of RAM. This could also be an indication of a Denial Of Service attack.

Keep the same IP address to maintain A SHOUTcast DNAS server connection

Use a Dynamic DNS service like no-ip.com or dyn-dns.com.

Analyzing SHOUTcast DNAS server logs

The Sawmill Log Analyzer software program can be used for analyzing logfiles from the SHOUTcast DNAS server.

Blocking a wide range of geographic locations from accessing your SHOUTcast DNAS server

A firewall such as ZoneAlarm used on Windows or iptables used on Linux computers can be used to limit listener / client access to a SHOUTcast DNAS server stream.

How Relayports & Relayservers work

SHOUTcast stations can be relayed or mirrored using these steps:

Look in the SHOUTcast DNAS server config file for this section:

```
; RelayPort and RelayServer specify that you want to be a relay server.  
; Relay servers act as clients to another server, and rebroadcast.  
; Set RelayPort to 0, RelayServer to empty, or just leave these commented  
; out to disable relay mode.  
; RelayPort=0  
; RelayServer=empty
```

Relayport is the port that clients connect with to listen, of the host/master stream.
Relayserver is the hostname or ip of the host/master stream server.

Example:

Relay of a master stream at IP address: 422.12.2.67, Port address: 9122.

RelayPort=9122
RelayServer=422.12.2.67

The SHOUTcast DNAS relay server will connect to the host stream and duplicate the host information provided in the configuration then rebroadcast it via its own IP address / port.

SHOUTcast DNAS server PortBase basic information

The SHOUTcast DNAS server uses port 8000 and 8001 (PortBase+1) by default. Other PortBase settings can be used, ranging from ports 1024 to 65535.

Modifications must be made to the host operating system if ports lower than 1024 are used.

Software to keep the SHOUTcast DNAS server active

Cron software, such as pycron can be used. It is free and is a Linux based application for Windows.

Cannot SHOUTcast DNAS server configuration (For the Windows Vista operating system)

Run software with administrator privileges.

The steps necessary to do this are:

- Right click on the SHOUTcast DNAS server shortcut
- Select "Run as administrator"
- Enter the credentials of a user with administrative privileges on your computer
- Click OK
- Run SHOUTcast DNAS server

Other

URL address of SHOUTcast station stream for listeners

`http://computer_ip_address:port_number/listen.pls`

Encountering skipping in a SHOUTcast audio stream

Check the Internet connection speed and the number of streams that are being broadcast. You cannot exceed the bandwidth that is available for the SHOUTcast DNAS server.

Check to make sure that the CPU is not maxed out. If it is, close out all unnecessary applications.

If you are using the soundcard mode and you are experiencing this problem, check the DSP settings. Try adjusting the frequency input settings on the input tab. See if this corrects the problem.

How to stream SHOUTcast music in Second Life

You can embed an audio stream within a specific land that you own or manage. Once a user enters your land, they will see a little audio icon appear. Music will play when the user clicks on that icon.

To embed the SHOUTcast music stream for your land, go to the Second Life 'About Land' window. The relevant SHOUTcast DNAS stream output URL must be entered into the 'Media URL' box.

Method for tracking listeners with the SHOUTcast DNAS server

This will allow the SHOUTcast DNAS server to log the location of connected clients when they listen to the SHOUTcast stream.

Look for this section in the SHOUTcast DNAS server config file.

```
code;; NameLookups. Specify 1 to perform reverse DNS on connections.  
; This option may increase the time it takes to connect to your  
; server if your DNS server is slow. Default is 0 (off).  
NameLookups=0
```

Change NameLookups=0 to NameLoopups=1.

Every time a client connects, the SHOUTcast DNAS server will perform a DNS lookup on the IP address. This data gets written to the DNAS logs.

Note: This requires slightly more bandwidth because the SHOUTcast DNAS server will be streaming and looking up DNS information.

Adding your SHOUTcast station to the Windows Media station directory

To have your station added, send an e-mail message to tuner@microsoft.com. If you are requesting a new listing or renewing an expired listing, a customer service representative will ask you to fill out a form with details about your station. After all the paperwork is completed, your station will be displayed within the Internet Radio feature in Windows Media Player.

Station not listed in SHOUTcast directory

It can take up to several hours before a new station is listed in the SHOUTcast station directory. This does not indicate that the station is not streaming, it means the station is currently not listed in SHOUTcast station directory.

Companies that provide royalty coverage for SHOUTcast audio streaming

www.loudcity.net

www.swcast.net

www.webradioworld.com (Most countries other than United States.)

Listeners get a 404 error when they try to listen to a SHOUTcast stream

No server running.

Software that will automatically adjust sound levels in MP3 files

MP3Gain is an open source software application that analyzes and adjusts mp3 audio files so they have the same volume level. mp3gain.sourceforge.net

Automatically creating a song log from the station stream

This can be done via the "create HTML" list, if you broadcast with Winamp. This feature can also provide all the statistics on the music playlist length total.

Some broadcast automation software does this, such as SAM Broadcaster.

Some stream hosts offer this feature as well.

Also look at www.iradiostats.com or www.webradiostats.com/portal/page.php?3.

The audio being streamed sounds strange or is being played fast

Make sure that the audio files are correctly encoded. If you are using an audio intro file, the bitrate and sample rate used to encode the audio file must match exactly the bitrate and sample rate used for encoding the regular audio stream.

AAC crashes

Find an old version of enc_aacplus.dll and replace the current one in the Winamp plugins folder. This seems to be the only fix when this problem occurs.

Creating a .PLS file to embed on a website

A PLS file can be embedded on a web page to allow people to click on the link and automatically listen to a SHOUTcast stream.

The PLS file can be created with any text editor and saved as a .PLS file. You can name the PLS file any name desired.

```
[Playlist]
File1=http://server_address:port number
Title1=station name
Length1=-1
Numberofentries=1
Version=2
```

* Note: the server address can be a URL or an IP address

Creating a .M3U file to embed on a website

A M3U file can be embedded on a web page to allow people to click on the link and automatically listen to a SHOUTcast stream.

The M3U file can be created with any text editor and saved as a .M3U file. You can name the M3U file any name desired.

The M3U file is much simpler to create and can be processed by all multimedia player software.

The only entry required for a M3U file is:.

- Address of the stream
- Port number

Example:

`http://my_server.com:8000`

* Note: the server address can be a URL or an IP address.